1: Krasheninnikov N-5 (1736-40) 1764 Kamchadal

The channel between the *Kurilskaya Lopatka* and this iſland is 15 verſts in breadth; over which they paſs in ſmall boats, when the weather is fair, in three hours. This paſſage requires not only fair weather, but likewiſe a flowing tide. In the time of the ebb, the waves ſpread for ſome verſts, are rapid and white, and ſo large that even in calm weather they riſe two or three fathoms high. Both the Coſſacks and *Kuriles* have a ſuperſtitious awe and veneration for theſe waves; and when they row over them, offer them a ſacrifice by throwing chips made on purpoſe, imploring a ſafe paſſage; the pilots alſo uſe conjurations the whole way.

The ſecond *Kurilskoy* iſland, *Paromuſir*, is twice as large as the firſt. It lies north-eaſt and ſouth-weſt, and is ſeparated from the firſt by a channel two verſts broad, where one veſſel may lie in time of neceſſity, but not without danger, there being no proper place for anchorage: and if a veſſel parts from her anchor, ſhe will be in very great danger; for the ſhore here being ſteep and rocky, and the channel narrow, it is next to impoſſible for her to eſcape. There was a melancholy example of this in the year 1741, when one of our veſſels was caſt away here. This iſland is alſo mountainous, and has as many lakes and rivulets as *Schumtſchu*; and on both of them, there is no other timber than *Slanetz* and *Ernick* which are uſed by the inhabitants for fuel, and they build their huts of different kinds of wood which they find thrown on the ſhore by the waves from *America* and *Japan*; among theſe are ſometimes found pieces of ranfarn wood, of which ſeveral large one's were brought thence to me. The inhabitants of this iſland are right *Kuriles*, who came there from the iſland *Onnecktoot*; but upon what account is not known. All affirm, that between the inhabitants of the two above-mentioned iſlands, and the moſt remote, commerce was formerly eſtabliſh-

1: Krasheninnikov N-5 (1736-40) 1764 Kamchadal

134 preſent are no woods, but only ſhrubs, and ſtunted ſallows, and birches, were formerly covered with water, which has decreaſed by degrees here, as it has upon the north-eaſtern coaſt. Below the earth lies a bed of pure ice, extremely hard; and under that a ſoft wateriſh clay, with gravel; this continues from the ſea up to the very mountains, and will ſufficiently account for the barrenneſs of theſe parts. But, though the land is not every where fit for agriculture, yet ſome places upon the river *Kamtſchatka* (which have been already mentioned) and along the *Biſtroy* river, are ſufficient to furniſh with corn, not only the inhabitants, but alſo the neighbouring parts. It is however to be feared, that the burning of the woods, in order to clear the lands, may drive away the ſables, who have a particular averſion to ſmoke: this happened upon the river *Lena*, formerly the beſt hunting country, but now deſerted by theſe animals.

137 313 459 The ſcarcity of wood is a great inconvenience, both the *Ruſſians* and natives being obliged to fetch it twenty or thirty verſts with great trouble and loſs of time, for the neceſſary uſes of boiling their ſalt and curing their fiſh: and it is very difficult to bring it down in floats, becauſe the current is rapid and ſo ſhallow, that they can bring only two little bundles on each ſide of a ſmall fiſhing-boat; otherwiſe they would obſtruct themſelves in the management of their boat, and thereby run the riſk of being driven upon the rocks, ſand-banks, and trunks of trees, where not only their boat and wood, but frequently the people themſelves are loſt. Sometimes the ſcarcity of wood is ſupplied by ſuch as is thrown up by the ſea, which the inhabitants gather upon the ſhore; but this wood that has been ſoaked in the water, although they are at great pains to dry it, never burns clear, but ſmothers away with a continual ſmoke very hurtful to the eyes.

137 313 At the diſtance of 30 or 40 verſts from the ſea, and near the heads of the rivers, grow birch-trees, alder, and poplar; of which the people build their houſes and make their boats. But this

1: Krasheninnikov N-5 (1736-40) 1764 Kamchadal

this they bring down with great difficulty, uſing the method above mentioned: for which reaſon a very poor houſe will coſt here 100 rubles and more, and a ſmall fiſhing-boat five rubles. In other places, where the hills are nearer the ſhore, and the water-carriage eaſier, wood for firing and building is much cheaper. 137 313

Upon the *Biſtroy* river, which falls into the Great River below the *Bolſcheretſkoi Oſtrog*, grows the beſt wood that is in theſe parts; even the birch-trees are ſo large, that captain *Spanberg* built a ſloop with their wood, in which he made ſeveral diſtant voyages to ſea. 137

It is very remarkable, that when this veſſel was launched ſhe lay as deep in the water as a veſſel full loaded; and it was believed, that ſhe never would be fit to go to ſea, but that the ſmalleſt loading would ſink her. But, when ſhe was laden, ſhe drew very little more water, and few veſſels ſailed better or lighter, or could go nearer the wind: the reaſon of which may be, that as this wood has not ſo much roſin, it ſucked a greater quantity of water at firſt, but ſo ſoon as its parts were once filled, it then ſucked very little more.

There is great plenty of wood upon the eaſtern coaſt of *Kamtſchatka*; from the hills down to the very ſhore grow very fine birch and alder trees. Beyond the river *Jonpanoba*, and towards its head, begin the woods which continue to the *Kamtſchatka*, *Lopatka*, and along the river *Kamtſchatka* to the mouth of the river *Elouki*. Up the river, almoſt to its head, grow likewiſe pines, but not large enough for buildings. About the neck of land which joins the peninſula of *Kamtſchatka* to the continent, the wood begins again to fail.

The changes of the weather and air are commonly in the following order: harveſt and winter make up more than one half of the year; and the ſpring and ſummer cannot be reckoned 132

above

I: Krasheninnikov N-5 (1736-40) 1764 Kamchadal

that amber is gathered here, near the *Penſchinſka* ſea, upon the river *Tegbil*, and farther north. 135

CHAP. V.

Of TREES *and* PLANTS.

THE moſt uſeful wood is the larch *, and the white poplar †, which ſerves for building their houſes and forts; and they are fit, not only for ſuch boats as the inhabitants uſe, but even for the building of ſhips. The larch-tree, indeed, only grows upon the river *Kamtſchatka*, and ſuch other rivers as fall into it: in other places they make uſe of the white poplar. The pine-tree ‖ and the black poplar ‡ are no where to be found upon the *Kamtſchatka*; and the pitch-tree ** only in one place, and there in ſmall quantities. Although there be many birch-trees ††, yet they make little uſe of them, unleſs in their ſledges, having none near their houſes but what are crooked and uſeleſs; and it is very troubleſome to bring the better ſort from the diſtance at which it grows. 137 313

They make great uſe of the birch bark, which they ſtrip from the trees while yet green; and cutting it in ſmall pieces, like vermicelli, eat it with dried caviar. In the winter, whenever you enter any of their villages, you find the women employed in hacking this green bark with their bone or ſtone axes. They alſo ferment this bark with the juice or ſap of the birch, which makes an agreeable drink. The birches of 314 222 262 273

* Larix. ‖ Pinus. ** Picea.
† Populus alba. ‡ Populus nigra. †† Betula.

1: Krasheninnikov N-5 (1736-40) 1764 Kamchadal

the birches of

Kamtſchatka are much fuller of knots and hard excreſcences than thoſe of *Europe*; but of theſe knots they make very uſeful plates, ſpoons, and cups. Mr. *Steller* obſerved, that the white poplar near the ſea was quite porous and light, which he attributed to the ſalt water; that the aſhes of this wood, laid out in the open air, turned into a ſtony ſubſtance heavy and hard, which, the longer it lies, the harder and heavier it grows. This ſtone, when broken, ſhews ſome ſpecks of iron in its ſubſtance. Sallows * and alders † are the common fire-wood in *Kamtſchatka*. The bark of the ſallow is uſed for food, and that of the alder in dying their leather; as ſhall be related more at large in another place. They have the tree tcheremough ‖ and the hawthorn ‡ of two ſpecies, one yielding a red, and the other a black fruit; of theſe they lay up a great quantity againſt winter: they have likewiſe the ſervice-tree ** in great plenty, whoſe fruit is eſteemed amongſt their moſt delicate confections.

Their principal nouriſhment is from the nuts of the ſlantza, which grows every where, both in hills and dales. This ſhrub, or tree, is truly of the cedar kind, only it is much leſs; and inſtead of growing ſtraight, it creeps along the ground. Its cones and nuts are not half ſo large as thoſe of the cedar: the *Kamtſchadales* eat them with the ſhells. Theſe, as well as the tcheremough and the hawthorn berries, are very aſtringent, eſpecially if eaten in any quantity. The greateſt virtue of theſe nuts is, that they are a good remedy againſt the ſcurvy, as all our ſeamen can witneſs: for in the moſt ſevere ſcurvy this is, as one may ſay, almoſt their only medicine; and from the tops of the ſlantza and cedar was their common drink made, ſometimes fermented, at other times drunk warm like tea; and orders were given by

* Salices.
† Alni.
‖ Pades foliis annuis. LINN.
‡ Oxyanthus fructu rubro et nigro.
** Sorbus.

the